

Toxics Use Reduction Institute Science Advisory Board Meeting Minutes

June 1, 2026

Virtual Zoom Meeting

9:30 AM

Members Present: Robin Dodson (Chair), Christy Foran, Ryan Bouldin, Loretta Fernandez, Jennifer Schlezinger, Rich Gurney (Vice Chair), Denise Kmetzo, Helen Poynton, Heather Lynch

Program staff present: Heather Tenney (TURI), Hayley Hudson (TURI), Karen Thomas (TURI), Colin Hannahan (TURI), Caredwen Foley (OTA), Tiffany Skogstrom (OTA)

Others present: Dannielle Melendez (ACC), Robert Rio (RAR Strategies), Joseph Daniels (ACC), Raza Ali (ACC), Sarah Soliman (ACC), Erin Dickinson (ACC), Billy Pitman (MCTA), Liz Harriman (LCSP), Carol Holahan (Foley Hoag LLP), Abbey Linsk (ACC)

Welcome & Introductions

Please note that this meeting is being conducted remotely as the provisions to allow remote meetings under the Open Meeting Law have been extended to June 30, 2027. Board members and program staff were introduced, and visitors were asked to put their name and affiliation in the chat.

Approve March Meeting Minutes

There was a motion to discuss the March meeting minutes as written, and there was a second. There was an opportunity for discussion, and one edit was suggested to correct “developmental toxin” to “developmental toxicant”. There was a motion to approve the minutes with that change and a roll call vote was conducted; seven members voted in favor, and one abstained.

Potential Higher Hazard Substances: More Hazardous Substances Dataset

TURI shared a presentation and provided background information on the More Hazardous Chemicals list and dataset with endpoints informed from previous work. This work originated in the late 1990s after reviewing many delisting petitions. The Board recognized substantial differences in toxicities among the listed chemicals so they started a categorization project which resulted in 3 lists: More Hazardous Chemicals (MHC), Less Hazardous Chemicals and Uncategorized. The purpose of these lists was informational only. Of the 1400 chemicals on the list at that time, 258 had been reported and were categorized.

Additional categorization work was done in the 2000s: adding persistent, bioaccumulative and toxic chemicals (PBTs) identified by EPA, reviewing data for chemicals that had been reported since the last categorization work, and reviewing the remaining EPCRA 313 chemicals which had not been reported.

TURA's 2006 Amendments established the regulatory process for Higher Hazard Substances (HHS) and Lower Hazard Substances (LHS). Since 2006, 14 HHS and 10 LHS have been designated.

Prior to this meeting, the Board was provided with updated EHS information for the MHC list. The questions presented to the Board at the meeting were:

1. How would the Board prioritize selecting High Hazard Substances (HHS)?
2. Are there any data points that are not useful?
3. Are there any key endpoints missing?

Board members tended to focus on endpoints that were specific to their specialty. The following endpoints were mentioned as most important to various members: IARC classification, pH, reference dose, $\log_{K_{ow}}$, BCF and LD_{50} .

There were questions on the usefulness of TLVs as a good hazard indicator. The TLV is not updated as frequently as other endpoints (e.g., reference dose (RfD) and reference concentration (RfC)). It was requested that the endpoint for the reference dose be included in the next version of the spreadsheet.

There was discussion on whether it was useful to gather more information on chemicals that are already IARC 1s – the IARC classification may be all that is needed in that case. Additional ways to prioritize and more systematic approaches were discussed, including:

- Decision trees
- Computational screening tools
- Grouping chemicals by hazard profiles to address large numbers of substances efficiently

There was discussion about the importance of persistence since a substance may not be acutely toxic but may be a chronic hazard that persists. Also, there was a request that the specific organism be identified for the LC_{50} and it was noted that information on developmental effects would be helpful.

It was noted that California Department of Toxic Substances Control's (DTSC) CalSAFER Program aggregates authoritative hazard lists. The information from the Program indicates neurotoxicity, teratogenicity, and reproductive/developmental toxicity. TURI will research the sources of this information and bring that to the Board at a future meeting. For the next meeting, TURI will reorganize the data table into groups for the More Hazardous Chemicals and provide the additional information requested.

Discussion of Computational Toxicology Tools for Endocrine Disruption Endpoint

TURI staff shared published papers on the four models for screening potential endocrine disruptors for which outcomes are provided in the Bioactivity Section on the comptox.epa.gov/dashboard (see list in handouts below).

There was discussion on the strengths and weaknesses of the models. Members noted the challenge of evaluating large numbers of chemicals individually and expressed interest in learning more about systematic screening methods. Board members discussed the potential value of using these models to group chemicals with similar toxicological profiles and to identify chemicals that warrant further review. Computational approaches may be particularly useful for identifying priority chemicals in the future, but currently there are limitations.

One shortcoming of the models is that they perform well when the bioactivity is strong but the Board is often in need of information when the bioactivity is weak. Another shortcoming noted is that the assays are one-dimensional and do not incorporate toxicokinetics. It was underscored that these are screening models only and thought must be given to how screening analysis differs from relative hazard evaluations. It was noted that while the models are not perfect, they are one source of information that is available.

Members generally expressed that the results of these models would not be valid as the only data source or even the primary data source but as informative secondary data to inform chemical hazard discussions.

Next Meeting

We will plan for a September meeting after the summer break.

The meeting was adjourned.

Handouts

- DRAFT March SAB Meeting Minutes for Board Review
- Updated More Hazardous Chemicals Dataset

Comptox articles:

- Mansouri 2016: CERAPP: Collaborative Estrogen Receptor Activity Prediction Project
- Browne 2015: Screening Chemicals for Estrogen Receptor Bioactivity Using a Computational Model
- Browne 2015: CORRECTION Screening Chemicals for Estrogen Receptor Bioactivity Using a Computational Model
- Mansouri 2020:CoMPARA: Collaborative Modeling Project for Androgen Receptor Activity
- Kleinstreuer 2016: Development and Validation of a Computational Model for Androgen Receptor Activity

Zoom Meeting Chat (lightly edited)

2026-06-01 09:35:39 From Tiffany Skogstrom to Everyone:

Tiffany Skogstrom, MA Office of Technical Assistance

2026-06-01 09:35:45 From Joe Daniels, American Chemistry Council to Everyone:

Joseph Daniels, American Chemistry Council

2026-06-01 09:35:54 From Raza Ali, American Chemistry Council to Everyone:

Raza Ali, American Chemistry Council

2026-06-01 09:36:02 From Erin Dickison, American Chemistry Council to Everyone:

Erin Dickison, American Chemistry Council

2026-06-01 09:36:30 From Dannielle Melendez, ACC to Everyone:

Dannielle Melendez, American Chemistry Council

2026-06-01 09:37:40 From Sarah Soliman to Everyone:

Sarah Soliman, American Chemistry Council

2026-06-01 09:38:01 From Robert Rio - RAR Strategies to Everyone:

JUST FYI - billy pitman, new ED at MCTA is the one calling in on the 5988 line

2026-06-01 09:38:27 From Robert Rio - RAR Strategies to Everyone:

bob Rio, RAR Strategies representing MCTA

2026-06-01 09:38:52 From Carol Holahan to Everyone:

Carol Holahan, Foley Hoag, LLP

2026-06-01 09:58:18 From Heather Tenney to Everyone:

- How would you prioritize selecting Higher Hazard Substances?
- Are there any data points that are not useful?
- Are there any key endpoints missing?

2026-06-01 10:00:48 From Ryan Bouldin to Everyone:

Screening Decision Tree

Step 1: Is it PBT?

YES → go to Step 2

NO → go to Step 3

Step 2 (PBT chemicals):

If RfD < ~0.005 mg/kg-day →  HIGH HAZARD

Else → ☐ ☐ Review further

Step 3 (Non-PBT chemicals):

If logKow ≥ ~3–4 → go to Step 4

If logKow < ~3 → lower priority (but not safe)

Step 4: Carcinogenicity

If EPA = “carcinogenic” or “likely carcinogenic”

OR IARC/NTP/ECHA equivalent →  HIGH HAZARD

Else → ☐ ☐ Moderate concern

2026-06-01 10:10:55 From Heather Lynch to Everyone:

I have to step away for just a bit! Super helpful discussion thus far, however.

2026-06-01 10:22:16 From Ryan Bouldin to Everyone:

To Jennifer's Point ---- Hazard Groups - Chronic Human Tox, Acute Tox., Environmental Persistence, Special systemic effects (ex. ED), Physical Hazard

2026-06-01 10:27:20 From Robin Dodson to Everyone:

<https://dtsc.ca.gov/scp/authoritative-lists/>

2026-06-01 10:40:37 From Carol Holahan to Everyone:

Can you describe what this process will be doing forward?

2026-06-01 10:41:03 From Liz Harriman to Everyone:

excellent thoughtful discussion by the Board!

2026-06-01 10:41:16 From Carol Holahan to Everyone:

And will there be a summary of this meeting available before the minutes?

2026-06-01 10:43:12 From Carol Holahan to Everyone:

Thank you. That would be very helpful.

2026-06-01 11:26:13 From Rich Gurney (Simmons U) to Everyone:

@Heather Lynch My notes were that it was for the EDSP Tier 1 screening. Did I mistakenly assume that this was EPA? Sorry, this is very far outside my day-to-day work.

2026-06-01 11:29:45 From Karen_Thomas1 to Everyone:

The Endocrine Disruptor Screening Program is run by the Office of Pesticide Programs under the Office of Chemical Safety and Pollution Prevention

2026-06-01 11:30:29 From Christy Foran to Everyone:

I'm sorry I have to drop early. Good discussion.

2026-06-01 11:30:47 From Heather Tenney to Everyone:

They are prioritizing, not regulating-correct?

2026-06-01 11:33:36 From Heather Lynch to Everyone:

Replying to "They are prioritizing, not regulating-correct?":

Depends what we are talking about. TSCA is a law that has teeth for regulating chemicals so are just starting to use NAMs as part of their hazard evaluation in determining whether there is unreasonable risk to HH or the environment, which could feed into restrictions or bans. So they can't use them alone. I don't know if that office (EPA OPPT) uses them for prioritization.

2026-06-01 11:42:45 From Rich Gurney (Simmons U) to Everyone:

@Heather Lynch I agree that the design of chemicals using the predictive tools is outside our SAB TURI work, but I hope that this work will one day put us out of a job, ultimately.

Ryan Bouldin: ❤️ ☐

Heather Lynch: 😂

2026-06-01 11:44:55 From Karen_Thomas1 to Everyone:

Replying to "They are prioritizing, not regulating-correct?":

The slide said that "EPA" (presumably the programs listed previously) accepted the Pathway estrogen model as an alternative to some of the original protocol for Tier 1 testing.

2026-06-01 11:48:07 From Heather Lynch to Everyone:

Replying to "They are prioritizing, not regulating-correct?":

Yes, my understanding is that's all pesticides and the Federal Food, Drug, and Cosmetic Act (FFDCA). So mainly for drugs, cosmetics (to the extent they are regulated), and pesticides. so not directly created/accepted for industrial chemicals.